

REMARKS

In the Office Action, the Examiner noted that claims 1, 3-6, 8-16, and 18-23 are pending in the application. The Examiner rejected claims 1, 3-6, 8-16, and 18-23. By this amendment, claims 1, 3, 4, 6, 8, 10, 12, 14, 16, 19, 20, 22, and 23 are amended. Support for these amendments can be found at least in FIGs. 5-8 of the Applicants' Drawings and at paragraphs [0055]-[0056] of the Applicants' Specification. Claim 15 is also canceled without prejudice. In view of the above amendments and the following discussion, the Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that all of these claims are now in condition for allowance.

I. Objection to the Claims

The Examiner objects to claims 11-12 for informalities. Specifically, the Examiner submits that "the programmable logic fabric portion" referenced in claims 11 and 12 is not recited in claim 10, from which claims 11-12 depend. The rejection is respectfully traversed.

In particular, the Applicants respectfully submit that the second limitation of claim 10 clearly recites "a programmable logic fabric portion comprising a plurality of clock based functionalities ..." (emphasis added). As such, claim 10 clearly provides the proper antecedent basis for the recitation of "the programmable logic fabric portion" in claims 11 and 12 that depend therefrom. Accordingly, the Applicants respectfully request that the objection to claims 11-12 be withdrawn.

II. Rejection Of Claims Under 35 U.S.C. §103

A. Claims 1, 4-6, and 19-21

The Examiner rejected claims 1, 4-6, and 19-21 as being unpatentable over Mahajan (United States patent 6,618,358, issued September 9, 2003) in view of Peace (United States patent 6,687,260, issued February 3, 2004) and further in view of Hashiguchi (United States patent 5,987,540, issued November 16, 1999). In response, the Applicants have amended independent claims 1, 6, and 19 in order to more clearly recite aspects of the present invention.

Mahajan teaches a method and apparatus for switching a clock source from among multiple T1/E1 lines. More specifically, Mahajan teaches a network access server (NAC) that recovers clock signals from incoming T1/E1 lines. A demultiplexor in the NAC selects and outputs one of the recovered clock signals, which is then used to drive the internal data bus of the NAC.

Mahajan, however, does not teach each and every element of Applicants' independent claims 1, 6, and 19. Namely, Mahajan does not teach or suggest that the entity that selects from among the recovered clock signals (*i.e.*, the demultiplexor) is also configured to process serial data from a serial bit stream. (See, *e.g.*, Applicants' Specification, at least at paragraphs 0055-0056; FIGs. 5-8, where the programmable logic fabric including the clock based functionalities receives both serial data streams for processing and a plurality of clocks (*e.g.*, recovered clocks and a reference clock) from among which to choose for the processing of the serial data streams). By contrast, the multiplexor taught by Mahajan, which the Examiner equates with the claimed "clock based functionality," merely selects from among the recovered clocks, but does not subsequently process a serial data stream in accordance with the selected clock. For example, FIG. 2 of Mahajan clearly shows that the only inputs to the demultiplexor 254 are a plurality of clock signals CLK1 – CLK_n, a clock selection control signal, and an oscillator input, and that the only output of the demultiplexor 254 is a selected clock.

Moreover, Mahajan also fails to teach or suggest that a reference clock is one of the clock signals from among which the "clock based functionality" (*i.e.*, the demultiplexor) may choose. (See, *e.g.*, Applicants' Specification, at least at paragraphs 0055-0056; FIGs. 5-8, where the programmable logic fabric including the clock based functionalities receives both recovered clocks and a reference clock from among which to choose for the processing of the serial data streams). By contrast, Mahajan only teaches the recovered clocks from the incoming T1/E1 lines are available for selection by the demultiplexor.

Peace and Hashiguchi fail to bridge these gaps in the teachings of Mahajan. Specifically, Peace teaches an apparatus and method for flow control of non-isochronous data. Hashiguchi teaches a system having a clock signal generating

circuit for selectively generating requested clock signals. However, both Peace and Hashiguchi fail to teach a component that both processes serial data from a serial bit stream and selects a clock from among a plurality of clocks (*e.g.*, recovered clocks and a reference clock) to use for the processing of the serial data.

Since none of Mahajan, Peace, and Hashiguchi teaches or suggests a component (*e.g.*, a clock based functionality of a logic fabric) that both processes serial data from a serial bit stream and selects a clock from among a plurality of clocks (*e.g.*, recovered clocks and a reference clock) to use for the processing of the serial data, Mahajan in view of Peace and further in view of Hashiguchi does not teach or suggest each and every element of the Applicants' independent claims 1, 6, and 19. Accordingly, the Applicants contend that independent claims 1, 6, and 19 are patentable over the combination of Mahajan, Peace, and Hashiguchi and, as such, fully satisfy the requirements of 35 U.S.C. §103.

Furthermore, claims 4-5 and 20-21 depend from claims 1 and 19, respectively, and recite additional features. Since Mahajan in view of Peace and further in view of Hashiguchi does not teach or suggest Applicants' invention as recited in independent claims 1 and 19, dependent claims 4-5 and 20-21 are also not unpatentable and are allowable. Therefore, the Applicants contend that claims 1, 4-6, and 19-21 are not unpatentable over Mahajan in view of Peace and further in view of Hashiguchi and, as such, fully satisfy the requirements of 35 U.S.C. §103.

B. Claim 3

The Examiner rejected claim 3 as being unpatentable over Mahajan in view of Peace and Hashiguchi and further in view of Tang (US Publication No. 2002/0075981). In response, the Applicants have amended independent claim 1, as discussed above, in order to more clearly recite aspects of the present invention.

As discussed above, Mahajan in view of Peace and further in view of Hashiguchi does not teach or suggest Applicants' invention where a component both processes serial data from a serial bit stream and selects a clock from among a plurality of clocks (*e.g.*, recovered clocks and a reference clock) to use for the processing of the serial data. This deficiency is not bridged by the teaching of Tang.

Therefore, Applicants contend that claim 3 is patentable over the combination of Mahajan, Peace, Hashiguchi, and Tang and, as such, fully satisfies the requirements of 35 U.S.C. §103.

C. Claims 10-12 and 22-23

The Examiner rejected claims 10-12 and 22-23 as being unpatentable over Mahajan in view of Hashiguchi. In response, the Applicants have amended independent claims 10, 22, and 23 in order to more clearly recite aspects of the present invention.

As discussed above, neither Mahajan nor Hashiguchi teaches or suggests Applicants' invention where a component both processes serial data from a serial bit stream and selects a clock from among a plurality of clocks (e.g., recovered clocks and a reference clock) to use for the processing of the serial data, as claimed in the Applicants' independent claims 10, 22, and 23.

Furthermore, claims 11-12 depend from independent claim 10 and recite additional features. Since Mahajan in view of Hashiguchi does not teach or suggest Applicants' invention as recited in independent claim 10, dependent claims 11-12 are also not unpatentable and are allowable. Therefore, the Applicants contend that claims 10-12 and 22-23 are not unpatentable over Mahajan in view of Hashiguchi and, as such, fully satisfy the requirements of 35 U.S.C. §103.

D. Claim 13

The Examiner rejected claim 13 as being unpatentable over Mahajan in view of Hashiguchi and further in view of Peace. In response, the Applicants have amended independent claim 10, as discussed above, in order to more clearly recite aspects of the present invention.

As discussed above, none of Mahajan, Hashiguchi, and Peace teaches or suggests Applicants' invention where a component both processes serial data from a serial bit stream and selects a clock from among a plurality of clocks (e.g., recovered clocks and a reference clock) to use for the processing of the serial data, as recited in the Applicants' independent claim 10.

Therefore, Applicants contend that claim 13 is patentable over the combination of Mahajan, Hashiguchi, and Peace, and, as such, fully satisfies the requirements of 35 U.S.C. §103.

E. Claims 14-16 and 18

The Examiner rejected claims 14-16 and 18 as being unpatentable over Mahajan in view of Hashiguchi and further in view of Mann (United States patent 5,251,210, issued October 5, 1993). In response, the Applicants have amended independent claim 14 in order to more clearly recite aspects of the present invention. Claim 15 is canceled without prejudice.

As discussed above, Mahajan and Hashiguchi both fail to teach or suggest Applicants' invention where a component both processes serial data from a serial bit stream and selects a clock from among a plurality of clocks (*e.g.*, recovered clocks and a reference clock) to use for the processing of the serial data, as recited in the Applicants' independent claim 14. This deficiency is not bridged by the teaching of Mann.

Furthermore, claims 16 and 18 depend from independent claim 14 and recite additional features. Since Mahajan in view of Hashiguchi and further in view of Mann does not teach or suggest Applicants' invention as recited in independent claim 14, dependent claims 16 and 18 are also not unpatentable and are allowable. Therefore, the Applicants contend that claims 14, 16 and 18 are not unpatentable over Mahajan in view of Hashiguchi and further in view of Mann and, as such, fully satisfy the requirements of 35 U.S.C. §103.

F. Claims 8-9

The Examiner rejected claims 8-9 as being unpatentable over Mahajan in view of Peace and further in view of Ohtsuka (United States patent 5,388,100, issued February 7, 1995). In response, the Applicants have amended independent claim 8 in order to more clearly recite aspects of the present invention.

As discussed above, Mahajan and Peace both fail to teach or suggest Applicants' invention where a component both processes serial data from a serial bit

stream and selects a clock from among a plurality of clocks (*e.g.*, recovered clocks and a reference clock) to use for the processing of the serial data, as recited in the Applicants' independent claim 8. This deficiency is not bridged by the teaching of Ohtsuka.

Furthermore, claim 9 depends from independent claim 8 and recites additional features. Since Mahajan in view of Peace and further in view of Ohtsuka does not teach or suggest Applicants' invention as recited in independent claim 8, dependent claim 9 is also not unpatentable and is allowable. Therefore, the Applicants contend that claims 8-9 are not unpatentable over Mahajan in view of Peace and further in view of Ohtsuka and, as such, fully satisfy the requirements of 35 U.S.C. §103.

CONCLUSION

Thus, the Applicants submit that none of the claims presently in the application are obvious under the provisions of 35 U.S.C. §103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring maintenance of the adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Justin Liu at 408-879-4641 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

All claims should be now be in condition for allowance and a Notice of Allowance is respectfully requested.

Respectfully submitted,

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I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent & Trademark Office on October 16, 2008.

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